

**We claim:**

1. A sterile hemostatic composition, comprising:
  - a continuous, biocompatible liquid phase comprising sterile thrombin; and
  - a solid phase comprising particles of a biocompatible polymer suitable for use in hemostasis and which is substantially insoluble in said liquid phase,5 said continuous liquid phase comprising said solid phase and said sterile thrombin substantially homogenously dispersed there through, wherein the ratio of said liquid phase and said solid phase is effective to provide said composition with hemostatic properties and said sterile thrombin comprises enzymatic activity.
- 10 2. The sterile hemostatic composition of claim 1 wherein said liquid phase comprises saline.
- 15 3. The sterile hemostatic composition of claim 2 wherein said biocompatible polymer is selected from the group consisting of proteins and polysaccharides.
4. The sterile hemostatic composition of claim 3 wherein said protein is selected from the group consisting of gelatin, collagen, fibrinogen and fibronectin.
- 20 5. The sterile hemostatic composition of claim 4 wherein said protein comprises gelatin.
6. The sterile hemostatic composition of claim 1 wherein said sterile thrombin has lost not more than about 20 percent of the enzymatic activity it possessed prior to 25 sterilization.
7. The sterile hemostatic composition of claim 1 wherein said sterile thrombin has lost not more than about 40 percent of the enzymatic activity it possessed prior to sterilization.
- 30 8. A method for making a sterile hemostatic composition, comprising:
  - providing a biocompatible liquid having thrombin dissolved therein,

combining said liquid comprising said thrombin with particles of a biocompatible polymer suitable for use in hemostasis and which is substantially insoluble in said liquid,

5 mixing said liquid comprising said thrombin and said particles under conditions effective to form a continuous liquid phase comprising said thrombin and said particles substantially homogenously dispersed there through, thereby forming a substantially homogeneous hemostatic composition; and

10 irradiating said substantially homogeneous hemostatic composition with an amount of ionizing radiation and for a time effective to provide a sterile, substantially homogeneous hemostatic composition,

wherein the ratio of said continuous liquid phase and said particles is effective to provide said composition with hemostatic properties and wherein said thrombin maintains at least a portion of its enzymatic activity.

15 9. The method of claim 8 wherein said liquid phase comprises saline.

10. The method of claim 9 wherein said biocompatible polymer is selected from the group consisting of proteins and polysaccharides.

20 10. The method of claim 9 wherein said protein is selected from the group consisting of gelatin, collagen, fibrinogen and fibronectin.

11. The method of claim 10 wherein said protein comprises gelatin.

25 12. The method of claim 8 wherein said sterile thrombin has lost not more than about 20 percent of the enzymatic activity it possessed prior to sterilization.

13. The method of claim 1 wherein said sterile thrombin has lost not more than about 20 percent of the enzymatic activity it possessed prior to sterilization.